Office of Clean Energy
Straw Proposal for the October 27, 2004
Public Hearing
on New Jersey's Clean Energy Program
2005 through 2008 Funding Level and Allocation

This straw proposal is made by the Office of Clean Energy and has not been reviewed or approved by the Board, the Board President or the Chief of Staff. The Office of Clean Energy (OCE), with the Center for Energy, Economic and Environmental Policy (CEEEP) has reviewed, evaluated and assessed all the comments and reports that were submitted for all the hearings and meetings in regard to the above referenced matter. This included all the comments and discussions on this matter in the Clean Energy Council (Council) meetings and Energy Efficiency (EE) and Renewable Energy (RE) Committee meetings and the energy efficiency and renewable energy recommendations put forth by the Council. These meetings and activities are summarized as follows:

- At the April 27, 2004 meeting, the Council discussed the schedule for establishing New Jersey's Clean Energy Program 2005 through 2008 funding levels and the 2005 EE and RE program budget including the OCE administrative budget and the program management budget. The Council also reviewed the CEEEP 2003 and the 2004/2005 evaluation process. The Outreach and Education committee presented an initial draft of the new Clean Energy Program branding and tagline.

- In its April 30, 2004 Order, the Board denied the Utilities request to bid on the RFP to perform program management services because they considered them competitive services. The Board Ordered the Office of Clean Energy to circulate the RFP for various market sector program managers for the Clean Energy Program.

- On April 30, 2004 the Board held a hearing on the 2004 funding levels

- In its May 7, 2004 Order, the Board established the procedural schedule for the 2005 through 2008 Comprehensive Resource Analysis proceeding as required by the New Jersey Electricity Discount and Energy Competition Act, N.J.S.A 48:3-49 et seq. (EDECA or the Act), for determining the 2005 – 2008 funding level, allocations, and program budget. The Board adopts New Jersey's Clean Energy Program objectives as follows:

    1. By December 31, 2008, six and a half percent of the electricity used by New Jersey residents and businesses will be provided by Class I and/or Class II renewable energy resources, of which a minimum of four percent will be from Class I renewable energy resources.

    2. By December 31, 2008, install 300 MW of Class I renewable electric generation capacity in New Jersey, of which a minimum of 90 MW will be derived from photovoltaics.

3. By December 31, 2012, 785,000 Megawatt hours per year and 20 billion cubic feet gas per year of energy savings will be derived from energy efficiency and renewable energy measures.

? On May 12, 2004, the Board provides notice of the series of hearings and meetings for interested parties to present comments on the record concerning New Jersey's Clean Energy Program 2005 through 2008 funding levels and the 2005 EE and RE program budget including the OCE administrative budget and the program management budget as follows:

June 8, 2004	Hearing on Funding Allocation Among Utilities for 2004 – Rutgers University - Bloustein School – New Brunswick – 10:00 a.m. to 12:00 noon
June 15, 2004	Meeting on Residential Programs - Trenton 10:00 a.m. to 12:00 noon
June 29, 2004	Meeting on Commercial and Industrial Programs - Newark 10:00 a.m. to 12:00 noon
July 13, 2004 and Aug. 11, 2004	Meeting on Low Income Programs - Trenton 10:00 a.m. to 12:00 noon
July 21, 2004	Meeting on Renewable Energy Programs - Newark 10:00 a.m. to 12:00 noon
August 5, 2004	Hearing on Funding Levels, Allocation and Lost Revenues - Newark – 12:00 noon to 2:00 p.m.

? On May 13, 2004 the EE and RE Committee chairs meet with CEEEP and OCE staff to discuss and develop a restructuring of the governance of the Clean Energy Council and Committee process. The Center developed a set of Guiding Principle for Committee Governances. The Chairs recommend that the Center be established to facilitate the 2005 through 2008 funding level, allocation and 2005 program budget process.

? At the June 7, 2004 meeting the Council discussed the framework for restructuring the Governance of the EE and RE Committees and the Guiding Principle for Committee Governances. The Council adopts the Guiding Principles and endorses the recommendations of the Chairs for CEEEP to facilitate the 2005 through 2008 funding level, allocation and 2005 program budget process.

? In its July 27, 2004 Order, the Board adopted the 2004 final funding level at $124.126 million and directed an additional $1.5 million to be collected if needed. The Board adopted the 2004 program budget at 139.126 million.

? At the August 5, 2004 meeting the Council discussed the Overview of the 2003 CEP Evaluation final report and the draft 2004/2005 Evaluation plan. The EE and RE Market Potential Reports performed by KEMA and Navigant were initially reviewed and discussed.

? At the August 30, 2004 meeting the Council continues the review and discussions of the EE and RE Market Potential Reports presented by KEMA and Navigant.

? During the summer of 2004 the Committees were meeting to discuss in general the funding level, program budgets and their recommendations for the EE and RE 2005 through 2008 funding level.

? At the September 14, 2004 meeting the Council discussed the current objectives, recommended by the Council and adopted by the Board, in light of the 2005 through 2008 funding levels potential rate impacts and the KEMA and Navigant Market Assessment. CEEEP presented a framework to analysis the overall rate impact of the 2005 through 2008 funding level. OCE and CEEEP established the remaining schedule of activities for the Council to complete in order to meet the Board's procedural schedule.

? On September 21, 2004 and September 23, 2004 the EE and RE Committee meet to discuss establishing a consensus recommendation for the 2005 – 2008 funding level within the framework and the overall rate impact presented by CEEEP.

? At the October 4, 2004 meeting the Council, after a series of EE and RE Committee meetings to discuss the EE and RE frameworks, continued their discussion of the EE and RE recommendations. Both Committees presented their recommendations which were not unanimous consensus positions of the Committees. These positions formed the basis for the OCE straw proposal.

Various funding levels and allocation methodologies have been proposed and discussed by the Clean Energy Council, EE and RE Committee meeting and interested parties that commented at the various hearing and meeting and provided comments to the Board on these is sues . However, the Clean Energy Council has not yet reached consensus on these issues. As a means to facilitate discussion and resolution of these issues, and to focus the comments of interested parties for the October 27, 2004 Hearing on the 2005 through 2008 Clean Energy Program funding level and allocation, the OCE has prepared this straw proposal for consideration.

There are both benefits and costs associated with increasing the funding level for New Jersey's Clean Energy Program. This straw proposal attempts to balance those costs and benefits in its recommendations. The issues considered in developing this proposal included consideration of the energy efficiency and renewable energy objectives recommended by the Council and adopted by the Board, the ability of programs to effectively ramp up to specified spending levels, historic program spending and relative savings, transition to new program managers, allocation methodologies, rate impacts, legacy program, and direct and indirect benefits (including environmental) to ratepayers.

Funding Level:

Clean Energy Program Funding Level

Table 1 below sets out the past four year Clean Energy Program funding level and the percentage allocated between the EE and RE program.

Year	Total Funding Level	EE	% of Total	RE	% of Total
2001	$115,000,000	$86,250,000	75%	$28,750,000	25%
2002	$119,000,000	$89,250,000	75%	$29,750,000	25%
2003	$124,126,000	$93,095,000	75%	$31,031,000	25%
2004	$124,126,000	$93,095,000	75%	$31,031,000	25%
4-year Total	$482,252,000	$361,690,000	75%	$120,562,000	25%

The OCE is recommending that the four year total statewide funding level for New Jersey's Clean Energy Program be set at $741 million as set forth in Table 2 below. This funding level would be a $259 million increase over the last four year funding level. The $139 million in 2005 includes the $15 million from the July 27, 2004 Order. The major factor in developing the OCE straw is that the EE and RE funding levels should be tied directly to the objectives.

Year	Total	EE	% Total	RE	% Total
2004	$124,126,000	$93,095,000	75%	$31,031,000	25%
2005	$139,000,000	$102,000,000	73%	$37,000,000	27%
2006	$164,000,000	$112,000,000	68%	$52,000,000	32%
2007	$204,000,000	$122,000,000	60%	$82,000,000	40%
2008	$234,000,000	$132,000,000	56%	$102,000,000	44%
Total	$741,000,000	$468,000,000	63%	$273,000,000	37%

EE Funding Level

The OCE straw would set the four year electric and natural gas EE funding level at $468 million. This is a 30% increase in EE funding over the last four year EE funding level. As such, we recommend increasing the EE Committee's recommendation for objectives to add in a 10% increased performance factor. This increased performance factor is based on experienced developed in administering the Clean Energy Program over the last three years.

The Change-A-Light Program as well as other electric and gas program improvements implemented in 2003 demonstrated the potential to substantially increase the savings relative to spending. The electric efficiency programs achieved a 46% improvement in cost per kilowatt-hour for first year savings. The gas efficiency programs achieved a 12% improvement in cost per therm for first year savings. Staff believes that a further 10% annual improvement in program costs vs. savings is a reasonable goal for the program managers. The straw proposal recommends that if funding increased by 20%, savings would need to increase by 30%. This increased performance factor would require the program managers to continue to improve performance instead of maintaining the status quo. Table 3 below calculates the goals using this formula.

EE Goals Calculation

Year	EE Funding Level * ($Million)	% increase in funding	% increase + 10% stretch factor	Savings Goal (MWh) *	Savings Goal (Dtherms) *
2003	$88			285,576	408,853
2004	$93				
2005	$102	9.68	19.68	341,770	489,305
2006	$112	9.80	19.80	409,454	586,206
2007	$122	8.93	18.93	486,958	697,167
2008	$132	8.20	18.20	575,568	824,028
Total (05-08)	$468	36.61	76.61	1,813,749	2,596,706

* 2003 = actual expenditures and energy savings
** 2004 = EE program budget set at $93 million

RE Funding Level

The OCE straw would set the RE four year funding level at $273 million. This is a 265% increase in RE funding over the last four year RE funding level. The OCE straw does not includes the current carryover, which is over $70 million. It should be noted that these carryover funds are not uncommitted funds. They are committed to future RE projects for which some form of funding approval that was issued by the OCE. The majority of these are customer sited renewable energy project. All of these carryover funds, except for some OCE administrative costs, will be directed to the RE program. In addition, the OCE has directed to the New Jersey Economic Development Authority (NJEDA) $20.0 million to fund the development of large scale renewable energy facilities, economic development for renewable energy companies and financing for EE and RE projects for small businesses and public entities.

Given the above increase in RE funding, the current carryover and funding at NJEDA, the OCE position is that the RE objectives recommended by the Council and adopted by the Board – install 90 MW of solar electric PV in-state and 300 MW of Class I renewable energy facilities in-state, will be achieved. This also relies on the development of a vibrant and active REC market, which forms the basis for long term renewable energy financing of installations in New Jersey.

Allocation:

Once the funding levels are established, the next steps involve allocating the funding first to electric and natural gas and then to customers of each utility. The following sets out OCE's proposal for allocating the proposed funding level.

Electric/Gas Split

OCE considered all of the allocation methodologies proposed in the proceeding by all parties and has developed this straw so that the allocation takes into consideration the programs to which the funding is allocated so that the amount collected from gas customers is not disproportionate to the programs that benefit gas customers. The straw also considers the current split and very importantly, the impact on rates that would result from the allocation selected.

In 2001 the electric/gas split approved by the Board was approximately 73/27%. Basing the allocation on total revenues from the electric and gas utilities would result in a 60/40% split respectively and basing the allocation on distribution revenues would result in a 67/33% split. Based on OCE's consideration of all of the above factors a 69/31% electric and gas split is proposed.

Allocation to Customers

Once the funding is allocated to electric and gas, the next step is to allocate the funding to customers of each utility. The OCE's overriding principle in developing this allocation was that all electric and all gas ratepayers should contribute equally, on a cents/kwh or $/therm basis, to the funding. This principle was balanced with the OCE's concern to minimize the percent rate impacts on customers of any one utility.

The OCE straw allocates the electric and gas funding level to customers based on each company's percentage of total revenues. That is, if JCP&L makes up 25% of the electric revenues, 25% of the electric funding is allocated to JCP&L customers. This amount is divided by the total sales to determine the per unit rate.

This allocation methodology produced an overall rate impact for Rockland Electric Company (RECO) of approximately 2.5 % which OCE believes may be too high. Therefore, RECO's allocation was reduced by $1 million or from approximately $3.4 million to $2.4 million in year 4. The overall statewide funding levels proposed above reflect this reduction. However, it should be noted that RECO customers receive the same opportunity to access New Jersey's Clean Energy Program and receive the same level of rebate funding as all other customers.

Allocation Results

Table 4 below sets out the year by year funding requirement for the customers of each utility using the methodology discussed above:

Proposed Funding Level Results

Utility	Current	2005	2006	2007	2008
Conectiv	$11,435,000	$12,563,796	$14,807,331	$18,396,987	$21,089,229
JCP&L	$34,939,000	$27,176,188	$32,029,080	$39,793,704	$45,617,172
PS-Electric	$43,385,000	$54,811,999	$64,599,856	$80,260,427	$92,005,856
RECO	$534,000	$1,048,016	$1,413,734	$1,998,882	$2,437,742
NJN	$4,217,000	$5,899,319	$6,952,768	$8,638,288	$9,902,428
NUI-Etown	$4,217,000	$5,908,302	$6,963,356	$8,651,443	$9,917,508
PS-Gas	$21,889,000	$26,835,479	$31,627,528	$39,294,808	$45,045,268
SJG	$3,510,000	$4,756,900	$5,606,347	$6,965,461	$7,984,797
Total	$124,126,000	$139,000,000	$164,000,000	$204,000,000	$234,000,000

The overall statewide average impact on rates by the fourth year is 0.95%. Since the increase in funding steps up incrementally each year, the annual average statewide impact is approximately 0.24% per year. The impact on rates varies by utility and by customer class. Rates are comprised of two basic parts, the distribution charge and the commodity charge. The percent impact the customer would see on the bill would be the overall rate impact, which includes both the distribution and the commodity charge. The average impact on each utility's customers by year 4 is set out in Table 5 below:

	Overall Rate Impact		Distribution Rate Impact	
Utility	% Change Res	% Change Non Res	% Change Res	% Change Non Res
Conectiv	0.92%	1.18%	1.98%	2.51%
JCP&L	0.48%	0.55%	1.05%	1.25%
PS-Electric	1.09%	1.34%	2.48%	3.45%
RECO	1.26%	1.39%	3.19%	3.72%
NJN	0.85%	1.04%	1.98%	3.20%
NUI-Etown	0.79%	1.01%	2.23%	4.03%
PS-Gas	0.70%	1.05%	2.08%	4.03%
SJG	0.65%	0.84%	1.68%	4.16%

Table 6 below sets out the funding level as a percentage of each utility's rates with the funding level set at $234 million:

	Overall Rate		Distribution Rate Only	
Utility	Res	Non Res	Res	Non Res
Conectiv	2.00%	2.58%	4.33%	5.48%
JCP&L	2.05%	2.36%	4.49%	5.32%
PS-Electric	2.07%	2.54%	4.69%	6.52%
RECO	1.61%	1.78%	4.09%	4.76%
NJN	1.49%	1.82%	3.45%	5.57%
NUI-Etown	1.37%	1.76%	3.89%	7.01%
PS-Gas	1.37%	2.04%	4.05%	7.83%
SJG	1.17%	1.50%	3.00%	7.42%

Finally, Table 7 below sets out how much an average customer would pay each year with the funding level set at $234 million:

	Res Customer $/Year	Commercial Customer $/Year	Industrial Customer $/Year		Assumed Usage Kwh/year
Conectiv	$17	$177	$2,054	Res	8,000
JCP&L	$17	$177	$2,054	Comm	81,000
PS-Electric	$17	$177	$2,054	Ind	939,000
RECO*	$12	$126	$1,456		
					therms/year
NJN	$14	$95	$124	Res	1,000
NUI-Etown	$14	$95	$124	Comm	6,700
PS-Gas	$14	$95	$124	Ind	8,800
SJG	$14	$95	$124		

* Based on the allocation discussed above RECO customers, on average, pay less than any other customer across the state and receive the same benefits.

EE Background

The recent market assessment performed by KEMA for the BPU concluded that increasing the funding for energy efficiency from its current level of about $85 million/year[1] to $180 million/year over the next four years would increase the net benefits to society from $1.8 billion to $2.6 billion. However, these benefits must be weighed against the impact on rates. The impact on rates is a function of both the statewide funding level ultimately approved by the Board and the method used to allocate the funding first to the electric and gas companies and then to the individual utilities.

Representatives of the EE Committee offered a wide range of recommendations regarding both proposed funding levels and goals for the EE programs. There was no unanimous or consensus position on the 2005 through 2008 funding level submitted by the EE Committee but, a recommendation was prepared and submitted for the Council's and the OCE's consideration. The submitted recommendations for consideration regarding the 2005 through 2008 funding levels are set forth in Table 8 below as follows:

Year	EE Committee	Rate Payer Advocate
2005	$113,000,000	$95,000,000
2006	$133,000,000	$100,000,000
2007	$153,000,000	$105,000,000
2008	$173,000,000	$110,000,000
Total	$572,000,000	$410,000,000

[1] The 2004 funding level is $124.126 million. This does not include the one time addition of $15 million added by the BPU if needed in 2004. The average budget for energy efficiency programs from 2001 – 2003 was approximately $85 million.

In addition to the EE Committee recommendations and the Rate Payer Advocates (RPA) recommendations, JCP&L recommended that statewide funding be increased by no more than 5%, and NAESCO recommended that funding be increased to a level that would achieve all cost effective energy efficiency by 2020 as set out in the KEMA report which would require $5 billion over the next 16 years.

This EE Committee's recommended position for the 2005 through 2008 Clean Energy program funding level approaches the level in KEMA's Advanced Efficiency scenario. Certain utilities and the Ratepayer Advocate believe these proposed funding levels are too high due to concern over rate impacts.

The EE Committee also considered the rate impacts associated with the proposed funding level. For the limited purpose of conducting the rate impact analysis, the EE Committee added the current renewable energy funding of $31 million to the proposed energy efficiency funding to determine the impact on rates. Any increases in funding for renewable energy would need to be added to the rate impacts associated with any increases in funding for energy efficiency.

Assuming a 4th year funding level of $170 million for energy efficiency plus the current level of $31 million for renewable energy results in total funding of $203 million by 2008. The rate impacts associated with this level of funding are as follows using the total revenue formula [2]:

- Distribution rate impacts ranged from 0 to 4% for the electric utilities and 2 to 5% for the gas utilities
- Total rate impacts ranged from 0 to 1.5% for electric utilities and from 0.8 to 1.3% for gas utilities

The EE Committee also asserted that the current benefits derived from an investment in energy efficiency significantly exceed the benefits derived from an investment in renewable energy. For example, in 2003 $88 million was expended on energy efficiency that delivered 3,739,164 MWh of lifetime savings ($23.62/MWh). $7.8 million was spent on the CORE program which delivered 109,981 MWh of renewable energy generation over the life of the systems ($71.11/MWh).

The KEMA report determined that increasing the funding by about 100% would increase peak kW savings by about 75%, or a little less than a 1 to 1 ratio. The Energy Efficiency Committee recommended that an aggressive goal would be to increase savings over the levels achieved in 2003 proportional to the increase in funding. Applying this formula to the funding levels recommended above would result in savings goals as follows in Table 9 below:

Year	Electric EE savings	Natural Gas EE Savings
	MWH	Dtherms
2005	346,990	496,778

[2] The rate impacts are a function of both the funding level and the allocation methodology. For this analysis the EE Committee utilized the parity funding concept put forth by the Council. Rate impacts can be mitigated for the utilities with high rate impacts by reallocating using a different approach.

2006	408,404	584,704
2007	469,000	672,629
2008	531,233	760,555

The EE Committee believes these represent aggressive, but realistic, objectives that will move a long way towards the BPU's objective of achieving all energy growth in New Jersey through energy efficiency and renewable energy by 2012. The Committee also recommends that in order to achieve the maximum benefit for funds expended that all RE projects should be reviewed for possible incorporation in EE programs so that RE dollars are not spent on more capacity than is actually needed, thereby increasing the overall cost benefit of both programs.

RE Background

A market assessment of the current renewable energy objectives recommended by the Council and adopted by the Board was performed by Navigant. The renewable energy objectives are: to install 90 MW of PV in NJ by 2008 and to install 300 MW of Class I renewables in NJ by 2008. Navigant concluded that given the current rebate and incentive funding levels the renewable energy objectives were achievable. The 90 MW PV goal was achievable but at the current funding level this would cost $350 million over 4 years. They concluded that given a vibrant Renewable Energy Certicificate (REC) trading system, the PV rebates could be lowered. Navigant also concluded that the 300 MW of Class I renewable in-state by 2008 was a stretch goal because of resource constraints (getting facilities constructed in 4 years given the permitting process) not a financial constraint. The 300 MW objective could be cost effectively achieved by increasing the timeframe to beyond 2008. Navigant concluded that a majority of the 300 MW could be installed without Clean Energy rebates based on a vibrant REC market.

As requested by the Council and directed by the Office, an environmental externality analysis of the renewable energy program was performed by the Center for Economics, Energy and Environmental Policy (CEEEP). As part of the Renewable Energy Task Force's recommendation, as directed by the Board, CEEEP is working on a detailed economic analysis to evaluate the costs and benefits of increasing the current RPS from 4% in 2008 to 20% in 2020. CEEEP agreed to accelerate that portion of the report in order to evaluate the societal benefit of increasing the Clean Energy Program funding. The CEEEP Report prepared for the OCE "Clean Energy Council Discussion Paper – Impacts of Environmental Externalities Upon Relative Costs of Renewable Technology and Impact of the Deployment of Renewable Generation on the Market Price of Electricity" (CEEEP Report), October 7, 2004. This report is available on the CEEEP website and the NJBPU website.

The CEEEP Report concluded that investing Clean Energy Funding to achieve the 90 MW objective will result in a benefit of $95 million which must be weighed against program costs. This report did not analyze the cost/benefit of achieving the 300 MW, but given the Navigant study finding of the cost effectiveness of a number of large scale Class I renewable energy facilities we expect this same level of benefit. In addition while the Navigant Market Assessment found that many of the large scale Class I renewable energy technologies are not likely to need direct financial support, this finding is not supported by OCE's empirical data. There is a short term need for financial support until the REC market becomes established and relied on for long term funding.

Representatives of the RE Committee, as with the EE Committee offered a wide range of recommendations regarding proposed funding levels for the renewable energy programs. The submitted recommendations for consideration regarding the 2005 through 2008 funding levels are set forth in Table 10 below as follows:

Year	RE Committee	Rate Payer Advocate
2005	$78,000,000	$30,000,000
2006	$78,000,000	$30,000,000
2007	$78,000,000	$30,000,000
2008	$78,000,000	$30,000,000
Total	$312,000,000	$120,000,000

The RE Committee's recommendations were made in order to achieve the Clean Energy Program objectives as recommended by the Council and adopted by the Board.

The results of the CEEEP Report were specific for renewable energy but are applicable to the electric energy saved through energy efficiency programs. The method developed by CEEEP monetizes the environmental benefit as an environmental externality cost. In summary, the CEEEP Report determined that the median environmental externality value from 30 published reports in this field was 4.4 cents/kilowatt-hour when comparing pv to gas fired generation. As set forth in Table 11 below , applying this to the results of the 2003 Clean Energy Program would generate the following avoided environmental costs or societal benefits from avoided environmental emissions and discharges.

Environmental Benefits of the 2003 Clean Energy Program Results Applying the CEEEP Environmental Externality Factor			
	Actual	Committed	Total
Annual Saving/Clean Energy Generated			
Energy Efficiency	$12,565,344	$8,120,156	$20,685,500
Renewable Energy	$318,516	$2,717,000	$3,035,516
Lifetime Saving/Clean Energy Generated			
Energy Efficiency	$164,523,216	$126,825,996	$291,349,212
Renewable Energy	$4,839,164	$55,674,828	$60,513,992